What is claimed is:

1. An electrical energy storage device, which comprises:

a) a container having a surrounding side wall providing an opening leading into the container;

b) an electrode assembly comprising an anode and a cathode in a electrochemical association with each other inside the container;

c) a lid having spaced apart upper and lower surfaces joined by a peripheral edge and secured to the open end of the container to provide a casing housing the electrode assembly, wherein the lid has at least a unitary terminal ferrule extending below the lid lower surface with an inner surface of the terminal ferrule characterized by a roughened texture;

d) a terminal lead extending through the terminal ferrule and having a length providing a first end position spaced above the upper surface of the lid and a second end connected to one of the anode and the cathode electrodes, wherein the terminal lead is sealed in the terminal ferrule in an insulated relationship therewith;

e) an insulator encasing the terminal ferrule and at least a portion of the length of the terminal lead disposed inside the casing; and

f) an electrolyte provided in the casing to activate the anode and cathode electrodes.

2. The electrical energy storage device of claim 1 wherein the insulator is of a thermoplastic fluoro-polymer material.

3. The electrical energy storage device of claim 1 wherein an outer surface of the ferrule is provided with a series of annular rings encased by the insulator.

4. The electrical energy storage device of claim 1 wherein the inner surface of the terminal ferrule has a machined roughened texture.

5. The electrical energy storage device of claim 1 including an annular ring surrounding the insulator encasing the terminal ferrule.

6. The electrical energy storage device of claim 1 wherein the lid has a unitary fill port extending below the lid lower surface.

7. The electrical energy storage device of claim 1 wherein the lid is of a conductive material selected from the group consisting of stainless steel, titanium, nickel and aluminum.

8. The electrical energy storage device of claim 1 as either an electrochemical cell or a capacitor.

9. A lid for closing an open end of a casing for an electrochemical energy storage device, the lid having a terminal ferrule supporting a terminal lead extending therethrough, wherein the terminal lead has a length providing a first end positioned spaced above the upper surface of the lid and a second end extending below the lid lower surface, and wherein the terminal lead is sealed in an insulated relationship in the terminal ferrule with an insulator encasing the terminal ferrule and at least a portion of the length of the terminal lead extending below the lid lower surface, the improvement in the lid comprising:

spaced apart upper and lower surfaces joined by a peripheral edge, wherein the terminal ferrule is a unitary portion of the lid extending below the lid lower surface with an inner surface of the terminal ferrule characterized by a roughened texture.

10. The lid of claim 9 wherein the insulator is of a thermoplastic fluoro-polymer material.

11. The lid of claim 9 wherein an outer surface of the ferrule is provided with a series of annular rings encased by the insulator.

12. The lid of claim 9 wherein the inner surface of the terminal ferrule has a machined roughened texture.

13. The lid of claim 9 including an annular ring surrounding the insulator encasing the terminal ferrule.

14. An implantable medical device, which comprises:

a) a device container;

b) a control circuitry; and

c) an electrical energy storage device, wherein the control circuitry and the electrical energy storage device are housed in the device container, the electrical energy storage device comprising:

i) a container having a surrounding side wall providing an opening leading into the container;

ii) an electrode assembly comprising an anode and a cathode in electrochemical association with each other disposed inside the container;

iii) a lid having spaced apart upper and lower surfaces joined by a peripheral edge and secured to the open end of the container to provide a casing housing the electrode assembly, wherein the lid has at least a unitary terminal ferrule extending below the lid lower surface with an inner surface of the terminal ferrule characterized by a roughened texture;

iv) a terminal lead extending through the terminal ferrule and having a length providing a first end positioned spaced above the upper surface of the lid and a second end connected to one of the anode and the cathode electrodes, wherein the terminal lead is sealed in the terminal ferrule in an insulated relationship therewith;

v) an insulator encasing the terminal ferrule and at least a portion of the length of the terminal lead disposed inside the casing; and

vi) an electrolyte provided in the casing to activate the anode and cathode electrodes.

15. A method for providing a lid assembly for a casing of an electrochemical energy storage device, comprising the steps of:

a) obtaining a blank;

b) machining the blank to provide the lid having spaced apart upper and lower surfaces joined by a peripheral edge, and a unitary terminal ferrule extending below the lid lower surface;

c) positioning a terminal lead in the terminal ferrule in an insulated relationship therewith by an insulating glass sealing between the terminal lead and the terminal ferrule, wherein the terminal lead has a length

providing a first end positioned spaced above an upper surface of the lid and a second end spaced below a lower lid surface; and

d) encasing the ferrule and at least a portion of the length of the terminal lead extending below the lower lid surface in an insulative material.

16. The method of claim 15 including providing the insulator of a thermoplastic fluoro-polymer material.

17. The method of claim 15 including providing an outer surface of the ferrule having a series of annular rings encased by the insulator.

18. The method of claim 15 including machining the terminal ferrule having an inner surface with a machined roughened texture.

19. The method of claim 15 including providing an annular ring surrounding the insulator encasing the terminal ferrule.

20. A method for providing an electrical energy storage device, comprising the step of:

a) providing a container having a surrounding side wall with an opening leading into the container;

b) disposing an electrode assembly comprising an anode and a cathode in electrochemical association with each other inside the container;

c) machining a blank to provide a lid having spaced apart upper and lower surfaces joined by a peripheral edge and at least a unitary terminal ferrule extending below the lid lower surface, wherein an outer surface of the terminal ferrule is in a normal orientation with the lid lower surface;

d) sealing a terminal lead extending through the terminal ferrule, the terminal ferrule having a length providing a first end spaced above the upper surface of the lid and a second end extending below the lid lower surface, wherein the terminal lead is sealed in the terminal ferrule in an insulated relationship therewith;

e) providing an insulator encasing the terminal ferrule and at least a portion of the length of the terminal lead extending below the lower lid surface;

f) connecting the portion of the terminal lead extending below the lid lower surface to one of the anode and cathode electrodes;

g) securing the lid to the container to close the opening leading therein and thereby providing a casing for the electrical energy storage device; and

h) activating the anode and cathode electrodes with an electrolyte provided in the casing.

21. The method of claim 20 including providing the insulator of a thermoplastic fluoro-polymer material.

22. The method of claim 20 including providing an outer surface of the terminal ferrule with a series of annular rings encased by the insulator.

23. The method of claim 20 including machining the terminal ferrule having an inner surface with a machined roughened texture.

24. The method of claims 20 including providing an annular ring surrounding the insulator encasing the terminal ferrule.

25. The method of claim 20 including machining the blank having a unitary fill port extending below the lid lower surface.